This paper presents a tar quantification method developed at the University of Stuttgart that allows quasi continuous online measurement of the content of condensable hydrocarbons (tar) in the gas from biomass gasification. It considerably simplifies the experimental procedure compared to other methods, described in literature. In addition the method also yields the content of gaseous hydrocarbons and can, therefore, replace a conventional analyzer with flame ionization detector. The method is based on the comparison of the total hydrocarbon content of the hot gas and that of the gas with all tars removed. Hot gas from the gasifier is led directly to the analyzer. Hydrocarbons are measured with a flame ionization detector. Sample loops with a defined volume and high temperature switching valves are used to guarantee high accuracy. A prototype has been developed and tested. Experiments with the gas from a fluidized bed gasifier have been conducted yielding very good results. Tar contents between 200 and 20000 mg/m$^3$ have been measured reliably. The experimental procedure is simple and repeatability is good. Sampling and analysis time is two minutes.